Queens District 5/5A Garage Draft Upland Site Summary

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QUEENS DISTRICT 5/5A GARAGE (DAR SITE ID #45)

Address: 48-01 58th Road, Maspeth, Queens (58-02 48th Street; 58th Road and 48th Street) Tax Lot Parcel(s): Queens Block 2600, Lot 1 Latitude: 40.720687 -73.923037 Longitude: Regulatory Programs/ Numbers/Codes: SPDES No. NY020084, EPA ID No. 1004566389, PBS Nos. 2-605736, NYSDEC Spill No. 0713159, 9801377, 9814792, 0800896, 0904484, and 1001456 Electronic Data Available | Hardcopies only Analytical Data Status:

1 SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs) TRANSPORT PATHWAYS TO THE CREEK

No Data Available

The current understanding of the transport mechanisms of constituents of potential concern (COPCs) from the upland portions of the Queens District 5/5a Garage site (site) to Newtown Creek is summarized in this section and Table 1 and supported in the following sections.

Overland Transport

Based on the site topography and records, stormwater at the site is expected to either flow overland towards Newtown Creek (see Figure 1) or through a local direct stormwater system to the creek. Both historically and currently, this pathway is potentially complete.

Bank Erosion

No specific evidence of bank erosion was identified in the available site records. Arial photographs indicate that there is a combination of vegetation and riprap along the bank of

Newtown Creek (see Figure 1). Both historically and currently, there is insufficient evidence to make a pathway determination.

Groundwater

The site is located adjacent to Newtown Creek. There is no available groundwater quality information available for this site. Twenty-two underground storage tanks (USTs) of petroleum are currently present at this site. A petroleum release may have reached groundwater, but the extent of contamination has not yet been delineated, and investigation is ongoing. Both historically and currently, there is insufficient evidence to make a pathway determination.

Overwater Activities

Available site records and aerial photographs do not indicate any overwater activities at the site (see Figure 1). Available information indicates no overwater activities during DSNY's occupation of the site. Both historically and currently, there is insufficient evidence to make a pathway determination.

Stormwater/Wastewater Systems

Stormwater is covered under the site's existing State Pollutant Discharge Elimination System (SPDES) permit (NYSDEC 1991). Stormwater from the site that is subject to contamination from vehicle fueling operations is treated by oil/water separators prior to discharging to the Newtown Creek via a SPDES permitted outfall. The site has exceeded its permitted effluent limit for oil and grease on several occasions (NYSDEC 2001, 2002a, 2002b; EPA 2011). Historically, this pathway was complete. There is insufficient evidence to make a current pathway determination (no current discharge data available).

Air Releases

Information related to air discharges was not located for this site. There is insufficient evidence to make a pathway determination.

2 PROJECT STATUS

• New York State Department of Environmental Conservation (NYSDEC) Site Code(s):

SPDES No. NY0200841; NYSDEC Spill No. 0713159, 9801377, 9814792, 0800896, 0904484, 1001456, 0903862, 0905531

• NYSDEC Site Manager: Brian Falvey

3 SITE OWNERSHIP HISTORY

Respondent Member:		Yes No
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Owner	Years	Occupant	Types of Operations
Unknown	1941 – probably 1966	WEVD*	Radio station
The Forward Association, Inc.*	Unknown – 1978	Unknown	See notes below
New York City Industrial Development Agency	. 1978 – unknown 1		Truck freight hauling
The Forward Association, Inc.*	Unknown – 1983	Unknown	See notes below
Island Transporters Corp.	1983 – 1987	Unknown	Total foriable handing
	1987 – 1989	Unknown	Truck freight hauling
City of New York	1989 – present	New York Department of Sanitation District 5 & 5a Garage	Truck storage, cleaning, and repair

Notes:

Corp. – corporation

4 PROPERTY DESCRIPTION

The buildings and impervious surfaces occupies approximately 4.73 acres. The site is approximately 15 feet above mean sea level and slopes down from east to west towards Newtown Creek, which is adjacent to the site. The confluence of Maspeth Creek and Newtown Creek is located approximately 0.32 mile northwest of the property (see Figure 1). The property is surrounded by manufacturing sites. The site is bordered by 58th Road to the south, 48th Street to the east, Newtown Creek to the west, and Cipico Construction, Inc., to

^{*} The Forward Association, Inc. was originally launched as a Yiddish-language newspaper. It later also operated WEVD (a Yiddish-language radio station), an English-language newspaper covering the Jewish world, and a website with both Yiddish and English sections.

the north. The area is zoned M3-1 (manufacturing). M3 districts are designated for areas with heavy industries that generate noise, traffic, or pollutants (NYCDCP 2011). A 2010 aerial photograph of the site is presented as Figure 1.

5 CURRENT SITE USE

The site is used for the storage of vehicles used in refuse collection, recycling, street cleaning and snow removal operations. Vehicle maintenance and refueling operations also occur at this facility. A covered salt storage facility is located on the western end of the site.

6 SITE USE HISTORY

The site comprises Block 2600, Lots 1 and 100. The western end is located on Newtown Creek and the eastern end touches Maspeth Creek. In the 1940s, the site contained a radio station with a building off of Maspeth Avenue (later 58th Road). A 350-foot tower was located close to Newtown Creek and another was on the eastern end, near Maspeth Creek (Sanborn 1914).

By the 1980s, two motor freight station buildings were located on the eastern end of the property, off of 48th Street and close to the Maspeth Creek bulkhead. The tower on the east end of the property was gone, but the tower close to Newtown Creek still existed, as well as another close to the connection of 48th Street and 58th Road (Sanborn 1986).

The City of New York acquired the land in 1987, and in 1989 the New York City Department of Sanitation (NYCDOS) located District 5 and 5A garages on the site (Supreme Court of the State of New York 1989). NYCDOS occupied the two garages starting in 1994.

7 CURRENT AND HISTORICAL AREAS OF CONCERN AND COPCS

The current understanding of the historical and current potential upland and overwater areas of concern at the site is summarized in Table 1. The following sections provide brief discussion of the potential sources and COPCs at the site.

7.1 Uplands

Twenty two USTs and ancillary equipment (i.e., dispensers) are located at the site: 11 at each facility (Queens 5 District Garage, and Queens 5A Mechanical Broom Depot) for fueling and maintenance purposes. Two others have been removed, and two are temporarily out of service. The tanks are constructed of fiberglass reinforced plastic with double-walled containment. Petroleum product storage and capacity is summarized as follows (EDR 2010; NYSDEC 2011):

Q5

Tank ID	Date Installed	Status	Capacity (Gallons)	Product
001	06/28/91	Temporarily Out of Service	2,500	Gasoline
002	06/28/91	Temporarily Out of Service	4,000	Biodiesel
003	06/28/91	In Service	1,000	Hydraulic Oil
004	06/28/91	In Service	1,000	Motor Oil
005	06/28/91	In Service	550	Hydraulic Oil
006	06/28/91	In Service	550	Used Oil
007	06/28/91	In Service	1,000	Used Oil
008	06/28/91	In Service	1,000	Used Oil
009	06/28/91	In Service	1,000	Used Oil
010	06/28/91	Closed – Removed 04/30/2010	2,500	#2 Fuel Oil
010A	07/01/10	In Service	2,500	#2 Fuel Oil
011	06/28/91	In Service	4,000	Biodiesel

Q5A

Tank ID	Date Installed	Status	Capacity (Gallons)	Product
001	01/02/90	In Service	2,500	Gasoline
002	01/02/90	In Service	4,000	Biodiesel
003	01/02/90	In Service	4,000	Biodiesel
004	01/02/90	In Service	1,000	Motor Oil
005	01/02/90	In Service	550	Hydraulic Oil
006	01/02/90	In Service	1,000	Hydraulic Oil
007	01/02/90	In Service	1,000	Used Oil

Tank ID	Date Installed	Status	Capacity (Gallons)	Product
008	01/02/90	In Service	1,000	Used Oil
009	01/02/90	In Service	550	Used Oil
010	01/02/90	Closed – Removed 04/15/2010	2,500	#2 Fuel Oil
010A	07/15/10	In Service	2,500	#2 Fuel Oil
011	01/02/1990	In Service	1,000	Used Oil

Potential historical and current contaminant sources at the site include trucks, tanks, and ancillary equipment that transport and stores petroleum products (including gasoline, diesel, #2 fuel oil, and hydraulic oil). The COPCs for these sources include: total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs).

7.2 Overwater Activities

Aerial photographs do not show overwater activities at the site.

7.3 Spills

Documented spills at the site are summarized as follows:

- On May 1, 1998, a line malfunctioned causing diesel to spill from the garage into the sewer (NYSDEC Spill No. 9801377). The EDR listing indicates that the line was shut off and would be repaired in the morning (NYSDEC 2011; EDR 2010). The spill was closed November 3, 2003.
- On March 12, 1999, the hydraulic line on one of the facility's trucks broke, causing
 fewer than 5 gallons of hydraulic oil to be released onto cars and the paved area in the
 parking lot (NYSDEC Spill No. 9814792). No drains were impacted, and the cars with
 oil were cleaned off at the wash rack (EDR 2010). The spill was closed September 14,
 1999.
- On March 13, 2008, an equipment failure resulted in a release of gasoline (NYSDEC Spill No. 0713159). The NYSDEC database listing indicates that the amount of gasoline spilled was unknown and that soil was affected. The Environmental Data Resources, Inc. (EDR), listing indicates that the volume of the

- release was minimal and corrective action was taken. The file has not been closed (NYSDEC 2011; EDR 2010).
- On April 22, 2008, the discharge line of a gasoline tank failed (NYSDEC Spill No. 0800896; EDR 2010). The spill was closed July 9, 2008.
- On July 2, 2009, a tank tightness test failed for a # 2 fuel oil UST. No information on any release is available (NYSDEC Spill No. 0903862). The spill was closed January 7, 2011.
- On July 2, 2009, a tank tightness test failed for hydraulic oil UST; no information on any release is available (NYSDEC Spill No. 0905531). The spill was closed on August 19, 2009.
- On April 23, 2010, an equipment failure resulted in a release of #2 fuel oil (NYSDEC Spill Nos. 1001456, 0904484 (tank previously failed tightness test July 16, 2009); EDR 2010). The UST tank has been removed and three of four soil samples taken showed exceedances of recommended cleanup objectives in TAGM 4046, despite no evidence of soil staining and no visible damage to the fiberglass tank. A Site Specific Investigation Plan was submitted to DEC in December 2010 and remains under review. Four monitoring wells have been proposed. The spill numbers remain open.

8 PHYSICAL SITE SETTING

No site-specific geologic or hydrogeologic information is available for the site. The following information is based on regional conditions in the Brooklyn and Queens area.

In general, the geologic setting of Newtown Creek area consists of Quaternary glacial deposits overlying Paleozoic gneiss and schist bedrock (Misut and Monti 1999). The contact between the glacial deposits and bedrock slopes rather steeply to the southeast, ranging in depth from less than 50 feet below ground surface (bgs) near the mouth of Newtown Creek to more than 200 feet bgs at the eastern portions of the historical data review area. The near-surface geology is of most interest relative to potential groundwater transport pathways from upland sites to the creek. In most areas, a heterogeneous anthropogenic fill unit of variable thickness (generally less than 20 feet thick) immediately underlies the surface. Beneath the fill in most areas are complex upper glacial deposits of Late Pleistocene age, consisting of ablation till, outwash, and glaciolacustrine sediments. In some areas near Newtown Creek, a

shell-bearing gray silt unit is present beneath the fill; this silt may represent post-glacial intertidal sediments deposited in wetlands adjacent to the creek prior to filling in the 1800s. An extensive sequence of regionally significant glacial units underlies the upper glacial deposits in areas where bedrock is deeper (Misut and Monti 1999).

The surface aquifer is typically contained with the upper glacial deposits and the lower portion of the anthropogenic fill layer. Depth to groundwater varies from a few feet to about 30 feet bgs in the historical data review area. Shallow groundwater generally flows towards and discharges to Newtown Creek (Misut and Monti 1999).

9 NATURE AND EXTENT (CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS)

Soil Investigations Yes No Bank Samples Yes No Not Applicable Soil-Vapor Investigations Yes No

In removing one 2,500 gallon capacity heating oil UST, DSNY conducted a site survey and geotechnical investigation. The removed fiberglass-reinforced plastic tank was found to be in good condition and free of any visual damages such as holes, pitting, or degradation. No soil staining was observed. DSNY collected soil samples from subsurface soil formations using disposable scoops. Four sidewall grab samples were collected at the midpoint of each side of the excavation at a depth of 6 ft bgs and one bottom sample was collection at the center of the excavation at a depth of 14 ft bgs.

The soil samples were analyzed for VOCs and SVOCs using USEPA Method 8260 plus MTBE, and USEPA Method 8270 for the compounds listed in the New York State Department of Environmental Conservation Spill Technology and Remediation Series Memo #1—Petroleum-Contaminated Soil Guidance Policy, August 1992.

VOCs and SVOCs were detected in all five soil samples. Three samples collected contained VOCs above NYSDEC guidance criteria, and one sample had several compounds (including

Soil

9.1

PAHs such as benzo(a)pyrene and benzo(b)fluoranthene) with minimal exceedances above NYSDEC TAGM 4046 Guidance criteria.

Based on the elevated VOC concentrations in the soil, further investigation was warranted, and a site specific investigation plan was formulated late 2010 to investigate the on-site soil and groundwater. This investigation is ongoing.

A total of 252.78 tons of soil was transported by truck for offsite disposal in May 2010.

9.2 Groundwater	
Groundwater Investigations	☐ Yes ⊠ No
NAPL Presence (Historical and Current)	☐ Yes ⊠ No
Dissolved COPC Plumes	☐ Yes ⊠ No
Visual Seep Sample Data	Yes No Not Applicable
9.3 Surface Water	
Surface Water Investigation	☐ Yes ⊠ No
SPDES Permit (Current or Past)	∑ Yes ☐ No
Industrial Wastewater Discharge (IWD) Permit (Cur	rent or Past)
Stormwater Data	∑ Yes ☐ No
Catch Basin Solids Data	☐ Yes ⊠ No
Wastewater Data	Yes No

9.3.1 Stormwater and Wastewater Systems

This site is within the Newtown Creek Water Pollution Control Plant (WPCP) sewershed. As described further below, stormwater drains to on-site infrastructure, is treated in an oil/water separator, and discharged via outfall to Newtown Creek. Wastewater is conveyed to the WPCP for treatment prior to discharge.

9.3.2 SPDES Permit

A SPDES stormwater permit application for the site was submitted on July 3, 1991. The operation contributing to the discharge flow is described as drainage of stormwater from 58th Road and a portion of 48th Street (Outfall 001) and drainage of stormwater from the site through oil/water separators (Outfall 002). The discharge flow from the oil/water separators is given as 377 gallons per day (gpd; NYSDEC 1991). Oily waste accumulated in the separators is contained in 1,000 gallon waste oil storage tanks (NYSDEC 1991). The permit was issued on August 15, 1991, and it was subsequently renewed on a 5-year cycle. The most recent renewal was January 1, 2009. Permit parameters and limitations are summarized as follows (NYSDEC 1991; NYSDEC 2011):

Permit Type	Permit Number	Start Date	Outfalls	Volume	Frequency-Parameters (Limit)
		08/15/91 (Renewed	001	Unknown	No Monitoring Required
		05/01/97,			Monthly Oil and Grease (15 mg/L)
		05/01/02,			Monthly Flow
SPDES	NY0200841	03/12/04,			Quarterly Benzene (0.10 mg/L)
		01/01/09	002	377 gpd	Quarterly Toluene (0.10 mg/L)
		Expires			Quarterly Xylene (0.10 mg/L)
		05/14/13)			Settleable Solids (unknown) ¹
				7	Ethylbenze (unknown) ¹

Notes:

9.3.3 Sampling Data

Since the original SPDES stormwater permit was issued in 1991, the site has been required to submit monthly discharge monitoring reports containing the effluent sampling results from Outfall 002 during rain events, prior to discharge to Newtown Creek. Site records did not document any exceedances for benzene, toluene, ethylbenzene, and xylene (BTEX). Oil and

¹⁻ Additional monitoring was added when the SPDES permit was renewed on January 1, 2009 (NYSDEC 2011, NYSDEC 2008). The NYSDEC database did not specify the limits of the new parameters.

mg/L - milligrams per liter

SPDES — State Pollutant Discharge Elimination System

grease exceedances identified in available documentation are summarized as follows (NYSDEC 2001, 2002a, 2002b; EPA 2011):

Report Date	Constituent	Result	Unit	Limit	Source
February 1995	Oil and Grease	126	mg/L	15	
October 1995	Oil and Grease	15.6	mg/L	15	
November 1995	Oil and Grease	22.1	mg/L	15	
January 19, 1996	Oil and Grease	45.9	mg/L	15	
June 3, 1996	Oil and Grease	16.8	mg/L	15	NYSDEC 2002b
October 15, 1997	Oil and Grease	17.4	mg/L	15	NYSDEC 2002b
August 5, 1999	Oil and Grease	33.0	mg/L	15	
September 10, 1999 ¹	Oil and Grease	42.0	mg/L	15	
February 14, 2000	Oil and Grease	66.0	mg/L	15	
May 2, 2000	Oil and Grease	47.0	mg/L	15	
July 26, 2000	Oil and Grease	53.0	mg/L	15	NYSDEC 2001,
August 14, 2000 ¹	Oil and Grease	24.0	mg/L	15	2002b
February 14, 2001	Oil and Grease	66.0	mg/L	15	NYSDEC 2002b
April 6, 2001	Oil and Grease	73.0	mg/L	15	NYSDEC 2002a,
August 12, 2002	Oil and Grease	26.0	mg/L	15	2002b
August 31, 2002	Oil and Grease	25	mg/L	15	
October 21, 2003	Oil and Grease	32	mg/L	15	
March 31, 2005	Oil and Grease	17.5	mg/L	15	EPA 2011
May 31, 2005	Oil and Grease	17.5	mg/L	15	
April 30, 2006	Oil and Grease	24.5	mg/L	15	

Notes:

1 – Significant non-compliance - the criteria for which include having two or more discharges with any non-toxic parameter 40% or more above its permitted limit during any calendar quarter.

EPA - U.S. Environmental Protection Agency

mg/L - milligrams per liter

NYSDEC - New York State Department of Environmental Conservation

9.3.4 Surface Water Summary

The site was issued an SPDES permit in 1991 for stormwater discharges from the site and has renewed the permit on a 5-year cycle. The current permit will expire in 2013 (NYSDEC 2011). The site has exceeded its permitted effluent limits for oil and grease on several occasions (NYSDEC 1995, 2000, 2002a, 2002b).

9.4	Sediment		
Creek	Sediment Data	☐ Yes ⊠ No	Not Applicable
Sedim	ent investigation information was not fou	and in reviewed documents.	
9.5	Air		
Air Pe			☐ Yes ⊠ No ☐ Yes 図 No
Air Da	ata		∐ Yes ⊠ No

Information related to air emissions was not found in reviewed documents.

10 REMEDIATION HISTORY (INTERIM REMEDIAL MEASURES AND OTHER CLEANUPS)

As noted above, several petroleum spills have been remediated. A spill of #2 heating oil from a former 2500 gallon UST is currently open and a Site Specific Investigation Plan is under review by NYSDEC.

11 BIBLIOGRAPHY/INFORMATION SOURCES

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Supreme Court of the State of New York, 1989. Final Decree, May 8, 1989.

12 ATTACHMENTS

Figures

Figure 1 Site Vicinity Map: Queens District 5/5A Garage

Tables

Table 1 Potential Areas of Concern and Transport Pathways Assessment

Table 1
Potential Areas of Concern and Transport Pathways Assessment – Queens District 5/5A Garage

Potential Areas of Concern		Medi	a Impa	acted								COPCs							Potential Complete Pathway							
Description of Areas of Concern	Surface Soil	Subsurface Soil	Groundwater	Catch Basin Solids	Creek Sediment	Gasoline-Range	Diesel – Range	Heavier – Range	eum Related BTEX)	OCs NOCs	Chlorinated VOCs	SVOCs	PAHs	Phthalates	Phenolics	Metals	PCBs	Herbicides and Pesticides	Dioxins/Furans	Overland Transport	Groundwater	Direct Discharge – Overwater	Direct Discharge – Storm/Wastewater	Discharge to Sewer/CSO	Bank Erosion	Air Releases
Spills	٧	٧	?	?	?	٧	٧	٧	٧	٧	?	٧	٧	?	?	?	?	?	?	٧	?		٧	?	?	?
USTs	?	٧	?	?	?	٧	٧	٧	٧	?	?		?	٠.	?	?	٠.	?	?	?	?	?	٧	1	?	?

Notes:

V − COPCs are/were present in areas of concern having a current or historical pathway that is determined to be complete or potentially complete.

? – There is not enough information to determine if COPC is/was present in area of concern or if pathway is complete

- Current or historical pathway has been investigated and shown to be not present or incomplete

BTEX - benzene, toluene, ethylbenzene, and xylenes

COPC – constituents of potential concern

CSO - combined sewer overflow

PAH – polycyclic aromatic hydrocarbons

PCB - polychlorinated biphenyl

SVOC – semi-volatile organic compounds

TPH – total petroleum hydrocarbons

UST – underground storage tank

VOC – volatile organic compounds



